BRUHAT BANGALORE MAHANAGARA PALIKE

Name of work: Construction of RCC Drains and Culverts at BHEL layout and Ayyappa layout and surrounding area in ward No :03, Yelahanka Satellite Town sub Division

JOB NUMBER.:

Sl No.5 Est. Amount = 175.00 Lakhs

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount In Rs.
1	KSRRB300-1 Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications.								
	KPWD S R 2018-19	It. No.	19.10		Pg No.	130			
	New CC Drain								
	BHEL layout								
	Ch:00-164 1st Main Road		2	164.00	1.00	0.90	295.20		
	Ch:00-170 2nd main Road		2	170.00	1.00	0.90	306.00		
	Ch:00-90 1st Cross Road		2	90.00	1.00	0.90	162.00		
	Ch:00- 100 2rd Cross Road		2	100.00	1.00	0.90	180.00		
	Ch:00- 102 3rd Cross Road		2	102.00	1.00	0.90	183.60		
	Ch:00- 95 4th Cross Road		2	95.00	1.00	0.90	171.00		
	Ch:00-103 5th cross Road		2	103.00	1.00	0.90	185.40		
	Ch:00- 183 sri Laxmi Venkateshwara opp Road (40' road)		1	183.00	1.00	0.90	164.70		
	New Kerb								
	BHEL layout								
	Ch:00-164 1st Main Road		2	164.00	0.20	0.20	13.12		
	Ch:00-170 2nd main Road		2	170.00	0.20	0.20	13.60		
	Ch:00- 183 sri Laxmi Venkateshwara opp Road (40' road)		1	183.00	0.20	0.20	7.32		
						Total Qty	1681.94	211.79	3,56,218.07
2	KSRRB M2900-1. Plain cement concrete M10 mix with crushed stone aggregate 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing including cost of materials, labour, HOM complete as per specifications.								
	KPWD S R 2018-19	It. No.	34.1		Pg No.	254			
	New CC Drain								
	BHEL layout								
	Ch:00-164 1st Main Road		2	164.00	1.00	0.15	49.20		
	Ch:00-170 2nd main Road		2	170.00	1.00	0.15	51.00		
	Ch:00-90 1st Cross Road		2	90.00	1.00	0.15	27.00		
	Ch:00- 100 2rd Cross Road		2	100.00	1.00	0.15	30.00		
	Ch:00- 102 3rd Cross Road		2	102.00	1.00	0.15	30.60		
	Ch:00- 95 4th Cross Road	Cum	2	95.00	1.00	0.15	28.50		
	Ch:00-103 5th cross Road		2	103.00	1.00	0.15	30.90		
	Ch:00- 183 sri Laxmi Venkateshwara opp Road (40' road)		1	183.00	1.00	0.15	27.45		
	New Kerb								
	Ch:00-164 1st Main Road		2	164.00	0.20	0.10	6.56		
	Ch:00-170 2nd main Road		2	170.00	0.20	0.10	6.80		
	Ch:00- 183 sri Laxmi Venkateshwara opp Road (40' road)		1	183.00	0.20	0.10	3.66		
						Total Qty	291.67	4479.56	13,06,553.27
3	KSRRB M2200-6. Providing TMT Bars Fe 500 steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification.								
	KPWD S.R 2018-19	It. No.	28.8.2		Pg No.	229			
	One cubic mt 60kg For CC Drain	T	1	37.88			37.88		
						Total Qty	37.88	72326.98	27,39,746.00

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate in Rs.	Amount In Rs.
4	Providing and laying plain/reinforced cement concrete for side drains Wall & bottom thickness 15cm using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500,1700, 2200. including cost of materials, labour, HOM complete as per specifications.								
	KPWD S.R 2018-19	It. No.	37.59.2.		Pg.No.	271			
	CC Drain								
	Bottom Raft								
	BHEL layout								
	Ch:00-164 1st Main Road	Cum	2	1	164.00	0.90	0.15	44.28	
	Ch:00-170 2nd main Road		2	1	170.00	0.90	0.15	45.90	
	Ch:00-90 1st Cross Road		2	1	90.00	0.90	0.15	24.30	
	Ch:00- 100 2rd Cross Road		2	1	100.00	0.90	0.15	27.00	
	Ch:00- 102 3rd Cross Road		2	1	102.00	0.90	0.15	27.54	
	Ch:00- 95 4th Cross Road		2	1	95.00	0.90	0.15	25.65	
	Ch:00-103 5th cross Road		2	1	103.00	0.90	0.15	27.81	
	Ch:00- 183 sri Laxmi Venkateshwara opp Road (40' road)		1	1	183.00	0.90	0.15	24.71	
	Side Wall								
	BHEL layout								
	Ch:00-164 1st Main Road		2	2	164.00	0.15	0.60	59.04	
	Ch:00-170 2nd main Road		2	2	170.00	0.15	0.60	61.20	
	Ch:00-90 1st Cross Road		2	2	90.00	0.15	0.60	32.40	
	Ch:00- 100 2rd Cross Road		2	2	100.00	0.15	0.60	36.00	
	Ch:00- 102 3rd Cross Road		2	2	102.00	0.15	0.60	36.72	
	Ch:00- 95 4th Cross Road		2	2	95.00	0.15	0.60	34.20	
	Ch:00-103 5th cross Road		2	2	103.00	0.15	0.60	37.08	
	Ch:00- 183 sri Laxmi Venkateshwara opp Road (40' road)		1	2	183.00	0.15	0.60	32.94	
							Total Qty	576.77	7070.20	40,77,879.25
5	Providing and laying 100mm thick pre-cast cover slabs over drains of width not exceeding 800 mm using M20 concrete reinforced with steel @6.00kg/Sqm, slabs jointed in CM 1:3 proportion and nicely finished including providing holes in the Cover slabs wherever necessary for easy drainage of surface water including of labour, materials, HOM, curing, lead and lift charges etc, Complete as per MORTH specifications No. 1500,1700.								
	Approval Rate								
	Cover Slab								
	BHEL layout								
	Ch:00-120 1st main Road	sqm	2		120.00		0.9	216.00	
	Ch:00-100 2nd main Road		2		100.00		0.9	180.00	
	Ch:00- 60 1st Cross Road		2		60.00		0.9	108.00	
	Ch:00- 60 2nd Cross Road		2		60.00		0.9	108.00	
	Ch:00- 60 3rd Cross Road		2		60.00		0.9	108.00	
	Ch:00- 60 4th Cross Road		2		60.00		0.9	108.00	
	Ch:00-70 5th cross Road		2		70.00		0.9	126.00	
	Ch:00- 150sri Laxmi Venkateshwara opp Road (40' road)		1		150.00		0.9	135.00	
							Total Qty	1089.00	2337.00	25,44,993.00
6	Providing and fixing Pre cast solid concrete kerb stones of size 450 x 200 x 400 mm made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete.								
	KPWD S.R 2018-19	It. No.	5.29.1		Pg No.	27			
	New Kerb								
	Ch:00-140 1st main Road	Nos	2		311			622	
	Ch:00-146 2nd main Road		2		324			648	
	Ch:00- 167 sri Laxmi Venkateshwara opp Road (40' road)		1		364			364	
							Total Qty	1634	477.00	7,79,418.00

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount In Rs.
7	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications.								
	KPWD S.R 2018-19	It. No.	24.1.		Pg No.	180			
	New Kerb								
	Ch:00-164 1st Main Road	Sqm	2	164.00		0.45	147.60		
	Ch:00-170 2nd main Road		2	170.00		0.45	153.00		
	Ch:00- 183 sri Laxmi Venkateshwara opp Road (40' road)		1	183.00		0.45	82.35		
						Total Qty	382.95	84.80	32,474.16
8	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications.								
	KPWD S.R 2018-19	It. No.	19.14		Pg No.	143			
	Earth for Road								
	BWSSB/Restoration Road Cutting								
	BC Road								
	Ch:00- 295 sri Laxmi Venkateshwara opp Road (40' road)	Cum	1	295	0.9	0.35	92.93		
	Ch:00-175 1st Main Road		1	175	0.9	0.35	55.13		
	Ch:00-24 2nd main Road		1	240	0.9	0.35	75.60		
	Ch:00-100 5th cross Road		1	100	0.9	0.35	31.50		
	Road Across cutting		27	6.6	0.3	0.35	18.71		
	Pot holes		24	1	1	0.35	8.40		
						Total Qty	282.26	57.03	16,097.34
9	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregatesof granite/trap/basalt material, mixing by mix in place method by rotavator at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications.								
	KPWD S R 2018-19	It. No.	21		Pg No.	153			
	BHEL Layout								
	BWSSB/Restoration Road Cutting								
	BC Road								
	Ch:00- 295 sri Laxmi Venkateshwara opp Road (40' road)	Sqm	1	295	0.9	0.15	39.83		
	Ch:00-175 1st Main Road		1	175	0.9	0.15	23.63		
	Ch:00-24 2nd main Road		1	240	0.9	0.15	32.40		
	Ch:00-100 5th cross Road		1	100	0.9	0.15	13.50		
	Road Across cutting		27	6.6	0.3	0.15	8.02		
	Pot holes		24	1	1	0.15	3.60		
						Total Qty	120.97	1855.00	2,24,397.50
10	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406								
	KPWD S.R 2018-19	It. No.	20		Pg No.	155			
	BHEL Layout								
	BWSSB/Restoration Road Cutting								
	BC Road								
	Ch:00- 295 sri Laxmi Venkateshwara opp Road (40' road)	Cum	1	295	0.9	0.2	53.10		
	Ch:00-175 1st Main Road		1	175	0.9	0.2	31.50		
	Ch:00-24 2nd main Road		1	240	0.9	0.2	43.20		
	Ch:00-100 5th cross Road		1	100	0.9	0.2	18.00		
	Road Across cutting		27	6.6	0.3	0.2	10.69		
	Pot holes		24	1	1	0.2	4.80		
						Total Qty	161.29	2001.28	3,22,790.45
11	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.MORTH I Chapter 3								
	KPWD S R 2018-19	It. No.	20		Pg No.	147			
	BHEL Layout								
	BWSSB/Restoration Road Cutting								

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate in Rs.	Amount In Rs.
	BC Road								
	Ch:00- 295 sri Laxmi Venkateshwara opp Road (40' road)	Sqm	1	295	0.9		265.50		
	Ch:00-175 1st Main Road		1	175	0.9		157.50		
	Ch:00-24 2nd main Road		1	240	0.9		216.00		
	Ch:00-100 5th cross Road		1	100	0.9		90.00		
	Road Across cutting		27	6.6	0.3		53.46		
	Pot holes		24	1	1		24.00		
						Total Qty	806.46	6.36	5,129.09
12	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision								
	KPWD S.R 2018-19	It. No.	22		Pg.No.	158			
	BHEL Layout								
	BWSSB/Restoration Road Cutting								
	BC Road								
	Ch:00- 295 sri Laxmi Venkateshwara opp Road (40' road)	Sqm	1	295	0.9		265.50		
	Ch:00-175 1st Main Road		1	175	0.9		157.50		
	Ch:00-24 2nd main Road		1	240	0.9		216.00		
	Ch:00-100 5th cross Road		1	100	0.9		90.00		
	Road Across cutting		27	6.6	0.3		53.46		
	Pot holes		24	1	1		24.00		
						Total Qty	806.46	33.92	27,355.12
13	KSRRB 500-2. Cleaning the existing black topped surface with Sqm brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications. Clause 501 of MORTH V revision								
	KPWD S.R 2018-19	It. No.	21.2		Pg.No.	158			
	Cleaning								
	BHEL Layout								
	BC Road								
	Ch:00- 295 sri Laxmi Venkateshwara opp Road (40' road)	Sqm	1	295	6.6		1947.00		
	Ch:00-175 1st Main Road		1	175	5.50		962.50		
	Ch:00-24 2nd main Road		1	240	5.50		1320.00		
	Ch:00-100 5th cross Road		1	100	5.50		550.00		
						Total Qty	4779.50	5.30	25,331.35
14	KSRRB 500-11. Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by smooth wheeled, vibratory & tandem rollers to achieve the desired density, but excluding cost of primer / tack coat & including lead, lift and cost of all materials, labour, HOM complete as per specifications.- do - using 120 TPH capacity Asphalt batch mix plant with sensor paver Gr-II Cum (50 mm to 75 mm) with 3.4% VG-30 Bitumen								
	KPWD S.R 2018-19	It. No.	21.17.2		Pg.No.	160			
	BM for road								
	BHEL Layout								
	BWSSB/Restoration Road Cutting								
	BC Road								
	Ch:00- 295 sri Laxmi Venkateshwara opp Road (40' road)	Cum	1	295	0.9	0.05	13.28		
	Ch:00-175 1st Main Road		1	175	0.9	0.05	7.88		
	Ch:00-24 2nd main Road		1	240	0.9	0.05	10.80		
	Ch:00-100 5th cross Road		1	100	0.9	0.05	4.50		
	Road Across cutting		27	6.6	0.3	0.05	2.67		
	Pot holes		24	1	1	0.05	1.20		
	BM For Profile correction		1	4779.5	0.15	0.05	35.85		
						Total Qty	76.17	5962.50	4,54,159.15
15	KSRRB M500-10. Providing and applying tack coat using 80/100 grade Sqm bitumen(VGIO) in boiler fitted with spray set distributor at the rate of 0.25 kg per sqm on the existing prepared bituminous surface (primed surface) cleaned with mechanical broom, complete as per specifications. Clause 503 of MORTH V revision								

Sl. No	Description of Work	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate In Rs.	Amount In Rs.
	KPWD S.R 2018-19	It. No.	21.7.		Pg No.	158			
	BC Road								
	BHEL Layout								
	Ch:00- 295 sri Laxmi Venkateshwara opp Road (40' road)	Sqm	1	295	6.6		1947.00		
	Ch:00-175 1st Main Road		1	175	5.5		962.50		
	Ch:00-24 2nd main Road		1	240	5.5		1320.00		
	Ch:00-100 5th cross Road		1	100	5.5		550.00		
					Total Qty		**4779.50**	**12.72**	**60,795.24**
16	Providing and laying bituminous concrete 40mm thick with hot mix plant, using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminous binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015.								
	KPWD S.R 2018-19	It. No.	21 78.12.		Pg No.	162			
	BC Road								
	BHEL Layout								
	Ch:00- 295 sri Laxmi Venkateshwara opp Road (40' road)	Cum	1	295	6.6	0.04	77.88		
	Ch:00-175 1st Main Road		1	175	5.5	0.04	38.50		
	Ch:00-24 2nd main Road		1	240	5.5	0.04	52.80		
	Ch:00-100 5th cross Road		1	100	5.5	0.04	22.00		
						Total Qty	**191.18**	**8699.42**	**16,63,155.12**
17	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803								
	KPWD S.R 2018-19	It. No.	24		Pg No.	182			
	Edge lane								
	Road Both Side	Sqm	1 2	810	0.15		243.00		
	Road cente		1 1	405	0.1		40.50		
						Total Qty	**283.50**	**454.74**	**1,28,918.79**
26	Direction and Place Identification Signs with size morethan 0.9 Size Board: Providing and erecting direction and place identification retro -reflectorised sign as per IRC:67 made of high i ntensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing.								
	KPWD S.R 2018-19	It. No.	24.4.		Pg No.	180			
	Edge lane								
	Road both side	sqm	3	0.90		0.9	2.43		
						Total Qty	**2.43**	**7557.80**	**18,365.45**
								Total Constrution cost	**147,83,777.00**
								GST 12%	**17,74,054.00**
								Design Report,Proof Checking & PMC Amount	**3,50,000.00**
								KRIDL Charges 4%	**5,91,352.00**

Construction of RCC Drains and Culverts at BHEL layout and Ayyappa layout and surrounding area in ward No :03, Yelahanka Satellite Town sub Division

Sl. No	Description of Work	Unit	No	Dimension			Quantity	Rate in Rs.	Amount in Rs.
				L	B	D			
								Sub Total	174,96,712.68
								Miscellaneous & Rounding Off	3,287.32
								Grand Total	175,00,000.00

Certificate:-

1. The workspot was inspected and work is found to be necessary
2. The area comes within the Bruhat Bangalore Mahanagara Palike Limits.
3. The rates adopted based on the PWD SR Bangalore Circle for year 2018-19
4. The provisions made in the estimate are necessary and essential

SRI SAI CONSULTANTS BANGALORE-90

Consultant
For Sri Sai Consultants

Assistant Engineer
Ward no. 03
BBMP - Bangalore

Assistant Executive Engineer
Yelahanka Sub Division
BBMP - Bangalore

Executive Engineer
Yelahanka Division
BBMP - Bangalore

Administrative Sanction for Rs. 175.00 Lakhs
one crore seventy five Lakhs
only
is accorded under head P-3749
CM - Navanagarothana IIa - Village
grants Annexure - 07
Registered as CE No. ... Subject
to conditions contd. ...
No EE/YNK/SSI/2019-20 Dt: 7/11/2019

Executive Engineer

Technical Sanction
Accorded For RSIR calculated
Head of A/C P-3749
CER NO :...197..... Dt: 08.11.2019

CE (YNK)